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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,429	04/01/2004	Hiroiyuki Shiota	65326-035	5722

7590 06/07/2006

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Washington, DC 20005-3096

EXAMINER

RUTLEDGE, DELLA J

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

EV

Office Action Summary	Application N .	Applicant(s)	
	10/814,429	SHIROTA, HIROYUKI	
	Examiner	Art Unit	
	D. Rutledge	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 5 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment

1. This Office Action is responsive to the Amendment received on 16 February 2006.

Drawings

2. The corrected drawing filed 16 February 2006 is acceptable.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 4, 6 – 8, 10 – 14 and 16 – 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Morita et al. (US Pat. No. 6,486,938).

In regards to claims 1, 11: Morita et al. have a pattern writing apparatus having a tilt or about 45° as shown in Fig. 1. The beam is scanned on the photosensitive material 2 in a main scanning and a sub-scanning direction as shown in Fig. 7. The apparatus has a spatial light modulator 40. Figure 7 shows each irradiation region group 61a – 61f, exposed in a lattice format. Each irradiation region is shifted in the sub-scanning direction by a distance D_3 . The distance D_3 is shorter than the irradiation region group.

In regards to claims 2, 12: the spatial light modulator is an array of a plurality of micro-mirrors whose orientation is individually changed. See at least the abstract.

In regards to claims 3, 13: the irradiation region group is rectangular and arrayed with equal pitches in two directions perpendicular to each other. See Fig. 7

In regards to claims 4, 14: the travel distance of the irradiation region group is approximately equal to a width of one side of the rectangular region in the sub-scanning direction.

In regards to claims 6 – 8, 16 – 18: the apparatus inherently extracts data, generates a data set and pixel values and writes data.

In regards to claims 10, 20: col. 6, lines 62 and 63 disclose continuous exposure in the main scanning direction.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. in view of Ishikawa (US Pat. No. 6,251,550).

Morita et al. do not write onto a substrate. Ishikawa teaches that maskless photolithography can be used to write pattern data in pixel form onto a substrate. One of ordinary skill in the art would be motivated to use the writing method of Morita et al. with a substrate for commercial advantage to diversify to other areas.

Allowable Subject Matter

7. Claims 5 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or suggest a pattern writing apparatus having the travel distance of the irradiation region group as claimed.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lan et al. (EP 0 987 875) discloses a pattern writing apparatus having a source 1, a spatial light modulator (an LCD), lattice patterning onto photosensitive paper 22..

Response Data

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Rutledge whose telephone number is (571) 272-2127. The examiner can normally be reached on Mon - Thurs, 6:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


D. Rutledge
Primary Examiner
Art Unit 2851

dr
5/15/06